CLAIMS

Having thus described my invention, I claim:

1. A structural reflective insulating material comprising:

a first outer layer of metal foil;

an adhesive binding coating material on an inner side of said first outer layer of reflective foil;

at least a first layer of foam material secured to said first layer of said reflective foil;

at least one layer of mesh material sandwiched between at least said first layer of foam material and at least a second layer of foam material;

at least a second layer of foam material;

a coating or adhesive binding material between at least a second layer of foam material and at least a second inner layer of reflective foil; and

at least a second layer of reflective foil bound to at least a second layer of foam material by the adhesive binding material.

2. The structural reflective insulating material of claim 1 wherein at least one of said first outer and second inner layers of reflective foil is aluminum.

3. The structural reflective insulating material of claim 1 wherein at least one of the first and second layers of foam material comprise polyethylene foam.

4. The structural reflective insulating material of claim 2 wherein at least one of the first and second layers of foam material comprise polyethylene foam.

5. The structural reflective insulating material of claim 1 wherein the coating of adhesive binding material is polyurethane.

6. The structural reflective insulating material of claim 2 wherein the coating of adhesive binding material is polyurethane.

7. The structural reflective insulating material of claim 3 wherein the coating of adhesive binding material is polyurethane.

8. The structural reflective insulating material of claim 4 wherein the coating of adhesive binding material is polyurethane.

9. The structural reflective insulating material of claim 1 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

10. The structural reflective insulating material of claim 2 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

11. The structural reflective insulating material of claim 3 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

12. The structural reflective insulating material of claim 4 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

13. The structural reflective insulating material of claim 5 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

14. The structural reflective insulating material of claim 6 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

15. The structural reflective insulating material of claim 7 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

16. The structural reflective insulating material of claim 8 wherein the mesh material is one from a group consisting of aluminum or galvanized steel.

17. A method of manufacturing a structural reflective insulating material comprising the steps of:

coating a first layer of reflective foil on one side with an adhesive binding material;

placing a first layer of foam material against the coating;

laying a mesh material on the first layer of foam material;

placing a second layer of foam material over the mesh material;

coating a second layer of reflective foil on one side with an adhesive binding material;

placing the second layer of reflective foil with the side coated with an adhesive binding material against the second layer of foam material; and

running the material through a heat press to bind all layers of material together to form an integral structural reflective insulating material.

18. A method of making an air duct from a structural reflective insulating material comprised of a first outer layer of reflective foil; an adhesive binding coating material on an inner side of said first outer layer of reflective foil; at least a first layer of foam material secured to said first layer of said reflective foil; at least one layer of mesh material sandwiched between at least said first layer of foam material and at least a second layer of foam material; at least a second layer of foam material; a coating or adhesive binding material between the at least a second layer of foam material and the at least a second inner layer of reflective foil; and the at least a second inner layer of reflective foil, comprising the steps of;

folding a piece of the structural reflective insulating material as many times as necessary so that ends of the piece form a channel; and

securing the ends together by securing means to form a desired configuration.

19. The method of forming the air duct in claim 18 wherein the securing means consists of metallic tape.

20. The method of forming the air duct in claim 18 wherein the desired configuration is substantially rectangular.

21. The method of forming the air duct in claim 18 wherein the desired configuration is substantially circular.

22. The method of forming the air duct of claim 21 wherein the securing means further comprises an inward curved hook on one end of the material and an outward curved hook on a second end, said curved hooks being interconnected to lock the duct in the substantially circular configuration.

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